

Adding ISO 14001 to ISO 9000 Systems

Many organizations are choosing to comply or obtain registration to the ISO 14001 Environmental Standard. These organizations often choose to establish these systems because of customer demands, market requirements, risk management, corporate commitment or a combination of these reasons. Many of these organizations often have existing ISO 9000 systems when the decisions are a result of customer or market requirements.

Often the decision to integrate the ISO 14000 system with the ISO 9000 system is automatic. This conclusion is usually valid and represents the optimal system solution but it requires more thought. Automatically combining the 14000 and the ISO 9000 system will not always result in an efficient environmental management system. It also has the possibility of introducing problems in the existing system. We will examine some fundamentals about systems, the aspects of these systems that will determine if they should be combined, what they have in common and the differences between the ISO 9000 and ISO 14000 systems.

Should the Systems be Combined?

One of the reasons that this decision is assumed is that it makes good sense. It is easier and less costly to maintain one robust system than two similar systems. You can gain by reduced staffing and training, combining the management review, corrective action and auditing functions, and using common documentation, record keeping, training and calibration systems. These benefits are obvious but they depend on these conditions;

- The existing ISO 9000 system is actually a system
- The system is goal-driven
- The existing system is effective
- The sub-systems (corrective action, auditing, management review, documentation, record keeping, training and calibration) are robust, efficient and effective.

Some of the above items deserve more consideration.

There are 48,000 + ISO 9000 registrations in North America; some percentage of them are actually systems in fact; the others are loose collections of somewhat related activities. There is a difference. Systems are very specific things and their ability to perform efficiently is dependent upon the nature and properties of systems. Applying the word “system” doesn’t provide any magic. Systems must be designed properly to be effective or efficient. The definition of a system is, “A whole which cannot be divided into independent parts.” Therefore, a system is a whole entity, consisting of two or more elements. Each element must satisfy these three conditions;

- each element must be capable of effecting the systems behavior or its properties
- no element of the system has an independent effect on the whole; the elements are interconnected and interrelated and all have an effect on the whole
- when grouped, each group of system elements has the same properties as an element of the system.

Although the ISO 9000 standards clearly require a system, the standards are casual about the requirements of systems. The auditing process assures that the various requirements work together to some extent. Still, it is possible, and even common, that the purpose of the individual elements and their contribution to the whole have not been identified or defined. To the extent that the system was not well defined, designed and evaluated, it will not provide the structure to make the added system prosper. The performance of a system depends on how the elements of a system interact, not how well each part

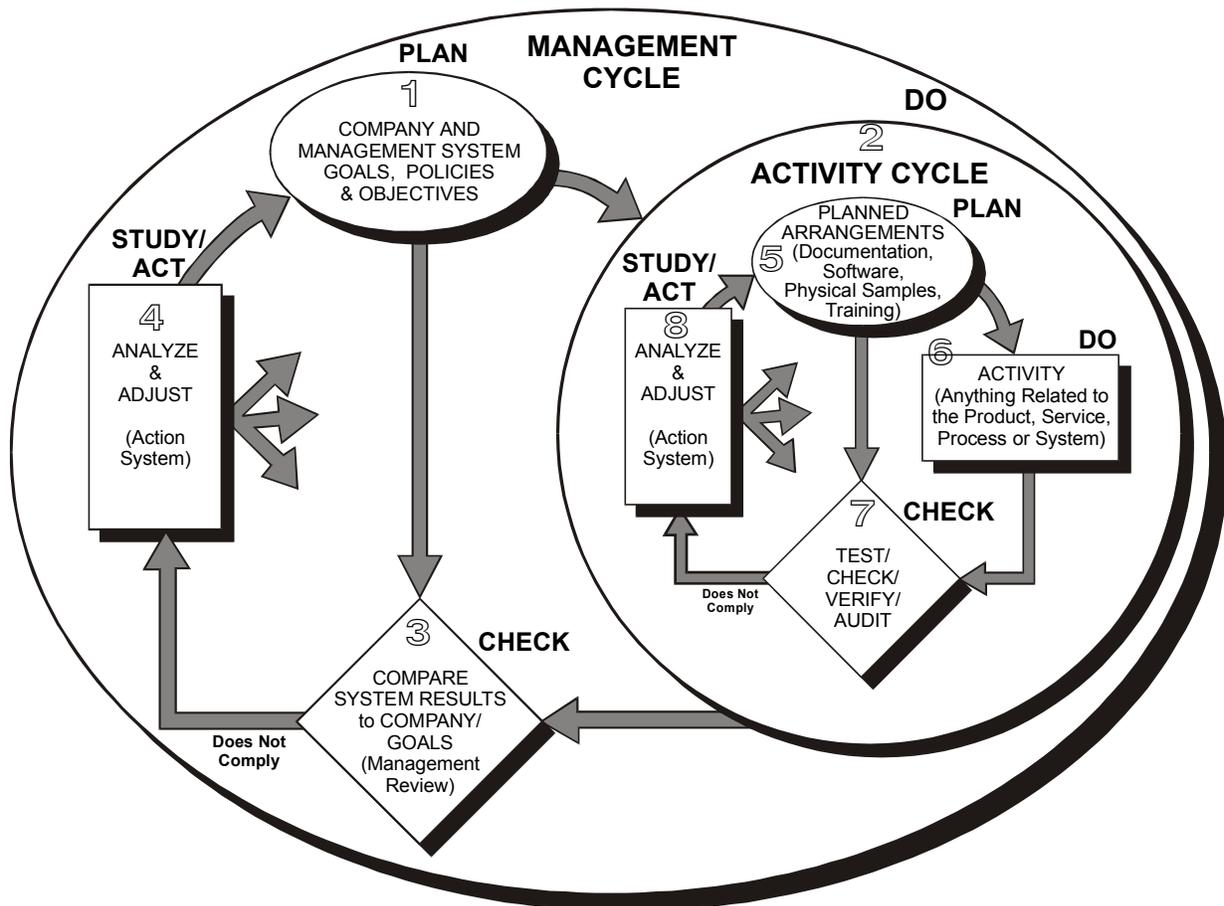
performs separately. The auditing process, internal or external, tends to focus on the individual elements and activities. If activities fail because of a lack of interrelation of system elements, the failure is stated in terms of what did not occur, not in terms of the inefficiency or ineffectiveness of the system. In fact there are no requirements in ISO 9000 for efficiency, only for effectiveness.

The ISO 14001 Standard, "...does not state specific environmental performance criteria." It is built on a model of "evaluate and improve". As such, it is much more dependent on system design than the ISO 9000 standards. The ISO 9000 standards require evidence of specific activities that result most efficiently from well designed systems; they do not require well defined systems.

Is the System Goal Driven?

This question is a lot like the last one in that all registered ISO 9000 systems have at least the goal of obtaining registration. When the system is designed to respond to goals and formalizes the process of establishing, reviewing and evaluating the goals, it is much more adaptable to change. Adding the ISO 14000 system is certainly a change. If your management system is formally goal driven it can manage quality activities, environmental activities, financial activities or other defined measurable goals. The system is likely to adapt easily to the addition of the environmental requirements and modifications to the shared sub-systems. The following model describes a goal-driven management system.

Goal-Driven Management System



What are the Differences between ISO 9000 and ISO 14001?

When you read the ISO 14001 Standards most of the topics will be familiar if you have a registered ISO 9000 system. Auditing, corrective action, management review and many other items are common. It just looks like more of the same kind of thing. To a great extent it is, but it is useful to be aware of the differences. In an ISO 9000 system there are many identified requirements that relate to a customer agreement. In fact, the purpose of a quality system is to, “ensure product (or services) conform to specified requirements.” For product related issues, the customer provides or helps determine the requirements. In ISO 14001 systems you analyze your activities and situation and determine which environmental impacts can be improved. Evaluation criteria, time frames, and the number of projects attempted are defined by your organization. Even during an external audit, the focus is on the methods and analysis for seeking target improvements. Without an external check by a customer or other organization the environmental system relies upon systemic controls more completely than ISO 9000. The ISO 14001 Standard does not state specific environmental performance criteria, neither does a customer or another organization. Your organization has a greater responsibility to thoughtfully establish, maintain, achieve and monitor internally developed goals.

In ISO 14001, there is a requirement to commit to compliance with legislation and regulations. This same requirement is implicit in ISO 9000 but the applicable requirements and legislation is much easier to address. Environmental activities are subject to regulation and legislation at the federal, state, county and often, local level. The regulations are complicated, contradictory and rapidly changing. Knowing the regulations that apply to your company, is typically more difficult than complying with them. The system for determining the regulations that apply is fundamental to the entire system. When your system is audited by an experienced, third party auditor, it is extremely unlikely that the auditor will have specific knowledge of all applicable regulations.

In your ISO 14001 system you will be required to formulate a plan to identify aspects and impacts of your organization’s environmental performance. This process allows you to consider financial, operational, business considerations and ability to improve the targets you are considering. In an ISO 9000 system, requirements are negotiated in contract review. Once you have reached agreement, you meet the agreements. Your agreement to provide whatever resources are required to operate the quality system is absolute. In your environmental system, resource limitations are appropriate restrictions on your environmental activities.

The environmental standards require that revision control include dates while ISO 9000 document revision can be indicated by an issue date, revision number or both. This may have no impact or a major impact on your existing system. If you have thousands of quality system documents, and you use revision numbers without revision dates (often the case with drawings) your existing document control methods will not meet the environmental requirements. If you chose to have one system manual (quality manual), which is a good idea if you have a single system, it may have to be modified to accommodate the documentation changes or to define the differences in document control by subject (quality or environmental).

There are other differences between these systems that have a lesser impact. These include emergency preparedness and formal communication methods. If your existing ISO 9000 system can adapt to the considerations discussed above it will have no problem with these minor differences.

If it appears that your existing system will not adapt to the ISO 14001 Standard easily, resist the temptation to create a separate system. Evaluate why the existing system is not adaptable. The characteristics of the existing system that prevent it from adapting to an ISO 14001 system may be messengers of system troubles. These existing troubles are likely to prevent the system from achieving optimal performance and may make system maintenance difficult and/or expensive. It may be an opportune time to refine and repair your existing ISO 9000 system.

About the Author

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